

CLAIMS

1. A conveyor system comprising:
2 a conveying belt trained around guide rollers for movement in a travel path;
a first roller which is mounted in an operative position on a support to bear
4 against the conveying belt; and
a roller support system comprising at least one wall which confines
6 downward movement of the first roller in the event that the first roller becomes
disengaged from the operative position,
8 the roller support system defining at least one opening through which
foreign matter separated from the first roller can pass.

2. The conveyor system according to claim 1 wherein the roller support
2 system defines an upwardly opening trough-shaped receptacle for the first roller.

3. The conveyor system according to claim 2 wherein the trough-
2 shaped receptacle has a top and bottom and the at least one opening is defined
toward the bottom of the receptacle so that the at least one wall guides foreign
4 matter separated from the first roller downwardly towards the at least one opening.

2 4. The conveyor system according to claim 1 wherein the first roller has
a first axis and the roller support system comprises a first blade that is movable
around a second axis that is substantially parallel to the first axis.

2 5. The conveyor system according to claim 4 wherein the roller support
system comprises a second blade that is movable independently of the first blade
around a third axis that is substantially parallel to the first axis.

2 6. The conveyor system according to claim 5 wherein the first blade has
a first free end, the second blade has a first free end, and the at least one opening
is defined between the first free ends of the first and second blades.

2 7. The conveyor system according to claim 1 wherein the roller support
system comprises a first blade and the first blade has a first free end that bears
against the first roller.

2 8. The conveyor system according to claim 7 wherein the first blade has
a second free end that bears against the conveying belt.

2 9. The conveyor system according to claim 8 wherein the first roller has
a first axis and the first blade is pivotable around a second axis that is parallel to
the first axis.

2 10. The conveyor system according to claim 9 wherein the first blade has
a concave surface opening toward the first axis.

2 11. The conveyor system according to claim 9 wherein the second axis
resides between the first and second free ends of the first blade.

2 12. The conveyor system according to claim 9 wherein the first blade has
a thickness that diminishes from the second axis toward the first free end of the
first blade.

2 13. The conveyor system according to claim 8 wherein the first roller has
a first axis, the first blade is movable around a second axis that is parallel to the
first axis, and the first blade has a thickness that diminishes from the second axis
4 toward the second free end of the first blade.

2 14. The conveyor system according to claim 1 wherein the travel path
includes an underside path portion and the first roller bears against the conveying
belt at the underside path portion.

2 15. The conveyor system according to claim 1 wherein the travel path
includes a conveying path portion and the first roller bears against the conveying
path portion.

2 16. The conveyor system according to claim 1 wherein the roller support
system comprises first and second independent blades.

2 17. The conveyor system according to claim 16 wherein the at least one
wall is defined by the first and second blades and the first and second blades
cooperatively define a trough-shaped receptacle for the first roller.

2 18. The conveyor system according to claim 17 wherein the at least one
opening is defined between the first and second blades.

19. The conveyor system according to claim 1 wherein the roller support
2 system bears against the conveying belt.

20. The conveyor system according to claim 1 wherein the at least one
2 wall comprises a urethane material.

21. A conveyor system comprising:
2 a conveying belt trained around guide rollers for movement in a travel path;
a first roller which is mounted in an operative position on a support to bear
4 against the conveying belt; and
a first blade that bears against the first roller and the conveying belt to strip
6 foreign matter from the first roller and conveying belt.

22. The conveyor system according to claim 21 wherein the first roller
2 has a first axis and the first blade is movable around a second axis that is
substantially parallel to the first axis.

23. The conveyor system according to claim 22 wherein the first blade
2 has a first free end that bears against the first roller and a second free end that

bears against the conveying belt and the second axis resides between the first and
4 second free ends.

24. The conveyor system according to claim 23 wherein the first blade
2 has a thickness that diminishes from the second axis towards the first free end of
the first blade.

25. The conveyor system according to claim 24 wherein the first blade
2 has a thickness that diminishes from the second axis toward the second free end
of the first blade.

26. The conveyor system according to claim 21 wherein the first roller
2 has a first axis and the first blade has a concave surface opening toward the first
axis.

27. The conveyor system according to claim 21 wherein the first blade
2 comprises a urethane material.

28. A cleaning blade for bearing simultaneously against a roller and a
2 conveying belt which is moving in a travel path to strip foreign matter therefrom,
the cleaning blade comprising:

4 a body having a mounting portion which is attachable to a support, a first
portion projecting in a first direction away from the mounting portion, and a second
6 portion projecting away from the mounting portion generally oppositely to the first
direction,

8 the first portion defining a first free end to engage a roller,

the second portion defining a second free end to engage a conveying belt.

29. The cleaning blade according to claim 28 wherein the mounting
2 portion has an axis about which the cleaning blade can be pivotably mounted.

30. The cleaning blade according to claim 28 wherein the cleaning blade
2 has a thickness that diminishes from the mounting portion toward the first free end
of the cleaning blade.

2 31. The cleaning blade according to claim 30 wherein the cleaning blade
has a thickness that diminishes from the mounting portion toward the second free
end of the cleaning blade.

2 32. The cleaning blade according to claim 29 wherein the cleaning blade
has a concave surface.

2 33. The cleaning blade according to claim 28 wherein the cleaning blade
comprises a urethane material.